UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
WACO DIVISION

JON BATTS,	§	
	§	
Plaintiff,	§	
	§	
v.	§	**CASE NO: 6:17-CV-00346-ADA-JCM**
	§	
REMINGTON ARMS COMPANY, LLC,	§	
	§	
	§	
Defendant.	§	

DEFENDANT REMINGTON ARMS COMPANY LLC'S OPPOSED MOTION TO EXCLUDE THE OPINION TESTIMONY OF PLAINTIFF'S LIABILITY EXPERT CHARLES POWELL AS TO PRODUCT DEFECT AND CAUSATION

Science is a way to keep from fooling ourselves, and each other.
- Neil deGrasse Tyson (astrophysicist)

Defendant, Remington Arms Company, LLC ("Remington"), pursuant to Federal Rule of Evidence 702 and case law cited herein, moves to exclude the opinion testimony of Charles Powell, the Plaintiff's liability expert, on the issues of product defect and causation.

OVERVIEW

On November 18, 2015, Plaintiff Jon Batts was firing his .300 Blackout caliber H&R Handi-Rifle manufactured by Remington. After he pulled the trigger to fire his third shot, the bullet lodged in the barrel, the single-shot, break-action rifle opened, and the just-fired (spent) cartridge case (shell) was propelled out of the rifle's chamber rearward through Batts' glasses and into his eye.

The parties and their experts differ about what caused the incident. The battleground is drawn and revolves around timing and testing: (1) did an improperly reloaded ammunition cartridge prevent the rifle from locking up and first cause the bullet to lodge in the barrel which

then caused the unlocked rifle to open (according to Remington's expert); *or* (2) did the force of a fired, properly loaded cartridge first disengage the rifle's locking mechanism causing the rifle to open which then caused the bullet to lodge in the barrel (according to Plaintiff's expert). This battle must be decided by the scientific method, a ballistics analysis, and the laws of physics. Plaintiff's expert, Charles Powell, shunned them all.

THE RIFLE[1]

The H&R Handi-Rifle is a break-action single shot rifle. To access the barrel's chamber to load or unload the firearm, the barrel must be rotated out of alignment with the receiver.[2] This is described as "breaking open the action." The action locks when a user fully closes it, and the release lever must be depressed to reopen it. The lockup consists of two main components: a spring-loaded *barrel catch*, pivotally attached to the receiver, and a *barrel lug*, rigidly attached to the barrel. *See* Exhibit 1; Exhibit 2 at 8. As a user closes the action, the barrel lug rotates the barrel catch against the spring and back into the receiver. When the barrel assembly is rotated fully into alignment with the receiver, the barrel lug slides under the barrel catch and the spring pushes the barrel catch forward and upward, over and into engagement with the barrel lug which is now held below the barrel catch. *Id.*

THE INCIDENT

Batts video recorded the incident. The video begins with Batts firing a round which appeared to fire normally. After Batts opened the action and removed the fired cartridge case, he loaded another round into the chamber and closed the action. He pulled the trigger. The bullet lodged in the barrel. The spent cartridge case was propelled forcefully rearward out of the chamber

[1] *See* Derek Watkins's Report, Exhibit 2, at 7-8 for an explanation of the rifle.
[2] The receiver houses internal components, such as the firing mechanism, and "receives" the barrel.

25 milliseconds after the firing pin struck the round of ammunition.[3] An earlier video shows Batts firing the first round from his rifle and the bullet from that round lodging at and partially out the end of the barrel. This is known as a "squib load," an under pressured round.

REMINGTON'S EXPERT

Mechanical engineer Derek Watkins analyzed the videos and test-fired 139 rounds of ammunition under various circumstances. He replicated the incident several times, including when he reconstructed the events, using the two videos.[4] Through his analysis and testing, Watkins has shown and has concluded:[5]

(1) bullets from factory-compliant sub-sonic rounds of .300 Blackout ammunition leave the barrel too quickly for even an unlocked barrel to open and expel a cartridge;

(2) a factory-compliant sub-sonic round of .300 Blackout ammunition exits the barrel in 1.3 – 1.4 milliseconds (and with it the pressure created by gasses from the burning propellant (gun-powder)), thus leaving no time for the pressure to remain in the barrel for it to open even an unlocked barrel and to propel the spent shell rearward;

(3) ammunition with improper geometry (dimensions) can prevent the Handi-Rifle from locking up;

(4) ammunition with incorrect or too little propellant can lodge the bullet in the barrel;

(5) when a bullet lodges in the barrel from an improperly loaded round, the pressure from the burning propellant's gasses trapped behind the bullet go rearward to open the action and propel the cartridge case rearward in about 25 milliseconds, *but only if there is no engagement between the barrel catch and barrel lug*;

(6) when a bullet lodges in the barrel from an improperly loaded round, the pressure from the burning propellant's gasses trapped behind the bullet do *not* open the action and propel the cartridge case rearward, *if there is engagement between the barrel catch and barrel lug at or even below 60 thousandths of inch*;

(7) the ammunition Batts was using were reloads of improper geometry (dimensions) and contained the incorrect propellant; and

[3] Watkins Report, Exh. 2, at 15. One millisecond is a thousandth of a second. On average, a human blink of an eye takes 100 milliseconds. https://www.somatechnology.com/blog/thursday-thoughts/fast-average-blink/.
[4] Watkins Report, Exh. 2, at 49-51.
[5] Watkins Report, Exh. 2, at 15, 16, 24-30, 36-39, 43, 45-48.

(8) Batts' rifle took 25 milliseconds to open and expel the cartridge case rearward.

Therefore, based upon his analysis and testing, Watkins demonstrated that the incident occurred because:

(1) improperly reloaded ammunition prevented the rifle from locking and lodged the bullet in the barrel; and

(2) the pressure from the burning propellant's gasses trapped in the barrel behind this lodged bullet went rearward causing the unlocked barrel to open and the just-fired brass cartridge case to be propelled rearward.[6]

This is the only way this incident could have occurred. If Batts had used properly loaded, factory-compliant ammunition, the incident could not have occurred.[7]

PLAINTIFF'S EXPERT

Plaintiff hired Charles Powell, a metallurgical engineer and not a mechanical engineer, who agrees there was no metallurgical failure and offers no opinion of any design defect. (Powell Dep., Exhibit 3 hereto, 13:10-14; 162:2-6) Powell agrees that Batts was using reloaded (remanufactured) ammunition, but opines that it was properly loaded, factory-compliant ammunition. (*Id.* at 29:9-16; 32:4-7; 6:2-5)

Powell's opinion of defect is that there was insufficient length of engagement between the barrel catch and barrel lug due to poor barrel fit during assembly. (*Id.* at 162:2-163:3). Powell's causation opinion is:

(1) when Batts pulled the trigger, the barrel catch and barrel lug were engaged;

(2) the force of the shot caused the barrel lug to disengage from the barrel catch;

(3) the disengagement caused the action to open;

(4) when the action opened far enough, there was still pressure in the barrel sufficient to propel the cartridge case rearward with great energy; and, therefore,

[6] Watkins Report, Exh. 2, at 20, 40, 49-51, 56-59.
[7] Further, the engagement in Batts' rifle is adequate for safe use of the rifle. Watkins Report, Exh. 2, at 34.

(5) the bullet lodged in the barrel because there was insufficient pressure left in the barrel to propel the bullet out of the barrel.

(*Id.* at 6:6 to 8:14; 18:15-19:3). Powell opines that the barrel catch – barrel lug engagement at the time was .060 of an inch and thinks any engagement less than Remington's specifications (.088") is not safe and has the potential to allow the action to open when a factory-compliant round is fired, but he has not tested that. (*Id.* at 18:15-20; 163:4; 163:15-25; 58:25-59:21; 64:13).

STANDARDS FOR ADMISSIBILITY OF EXPERT OPINION TESTIMONY

Fed. R. Evid. 702 states:

> A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (1) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (2) the testimony is based upon sufficient facts or data; (3) the testimony is the product of reliable principles and methods; and (4) the witness has reliably applied the principles and methods to the facts of the case.

The proponent of an expert must establish the admissibility of that expert's opinion. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 592, n.10 (1993); *see also, Kuhmo Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999). Opinion testimony is unreliable if it is not grounded "in the methods and processes of science" and is nothing more than a "subjective belief or unsupported speculation." *Daubert*, 509 U.S. at 590. *Daubert* and its progeny emphasize the importance of testing and the necessity for the trial court to scrutinize that testing. *Daubert*, 509 U.S. at 593 ("a key question . . . will be whether [a theory] can be (and has been) tested."). "Scientific methodology today is based on generating hypotheses and testing them to see if they can be falsified; indeed, this methodology is what distinguishes science from other fields of human inquiry." *Daubert*, 509 U.S. at 593 (internal citations omitted); *see, also, Oglesby v. General Motors Corp.*, 190 F.3d 244, 248-50 (4th Cir. 1999) (expert's failure to test his theory that defect

in radiator hose connector caused explosion rendered opinions unreliable); *Bogosian v. Mercedes-Benz, Inc.*, 104 F.3d 472, 479 (1st Cir. 1997) (expert's failure to "attempt to replicate the known facts surrounding the injury-producing event" rendered opinions unreliable). Courts applying *Daubert* have consistently "required experts to demonstrate that objects and materials are capable of behaving in the manner they hypothesize under the conditions of the event in question." *Fireman's Fund Inc. Co. v. Tecumseh Products*, 767 F.Supp.2d 549, 555 (D. Md. 2011) (citing *Higginbotham v. KCS Int'l., Inc.*, 85 F. App'x. 911, 916 (4th Cir. 2004)). To form a reliable and admissible causation opinion linking an alleged product defect to an accident, an expert must rule-out other potential non-defect related causes. *See Brown v. Parker-Hannifin Corp.*, 919 F.2d 308, 311-12 (5th Cir. 1990) (affirming exclusion of testimony of expert willing to speculate about two possible causes of mechanical failure without a basis for ruling out plausible alternative causes, which did not implicate the claimed product defect as the cause of the accident).

POWELL'S OPINIONS ARE UNRELIABLE AND INADMISSBILE[8]

Based only on a December 2016 radiograph of Batts' rifle, Powell assumed the barrel catch – barrel lug engagement was "inadequate" and, therefore, assumed the rifle was defective. (*Id.* at 74:21–75:3; 100:25–101:2). In November 2017 Powell and Watkins jointly examined and had the rifle CT scanned. As of then, Powell's only "hypothesis" was the barrel improperly latched as a result of manufacture. (*Id.* at 20:19–21:7). He never tested whether his sole remaining hypothesis was correct and never considered any other possibility.[9] He concluded the incident occurred

[8] Remington reserves the right to challenge Powell's qualification under F.R.E. 702. *See, Watkins v. Telsmith, Inc.*, 121 F.3d 984, 988 (5th Cir. 1997) (affirming exclusion of plaintiff's expert, because the expert's "training is in civil engineering, while the expertise required by this case, of which [the expert] possesses little, lies in mechanical engineering."). He has no formal education in ballistics, which includes the evaluation of bullets fired from firearms. (*Id. at* 189:2-13).

[9] He had (properly) ruled out a defect or failure of the material and a high pressure round, the only other possible causes he considered. (*Id. at* 20:24 – 21:23).

because of inadequate engagement based on: (1) the video of the incident; (2) measurements and radiographs of the post-incident engagement of the barrel catch with the barrel lug; and (3) microscopic examination of the surfaces of the barrel catch and lug. (*Id.* at 1:13-23).

Powell did not replicate and did not try to replicate the Incident.

Powell did not consider replicating Batts' incident, although he agrees that much can be learned how a "failure" occurs if the incident can be replicated. (*Id at* 8:23-9:1; 23:17-20).

> **Q** If you were to do that in an attempt to replicate Mr. Batts' incident, what would you do? How would you do it?
> **A** I haven't given it consideration, but it would be related to low engagement between the latch and barrel lug, as well as firing a standard cartridge, a standard subsonic 300 AAC Blackout cartridge.

(*Id.* at 9:19-10:1; emphasis added). Nevertheless, he does recognize the value of such testing.

> **Q** If you could do that and you could adjust the engagement down to 60/thousandths, do you see any value of running a test by firing a factory round of ammunition out of the rifle to see if the action would open and propel the cartridge case rearward with sufficient force to cause injury?
> **A** As we discussed several times in my deposition today, as an engineer, I think all testing is good. If you could do it, I would like to see it.

(*Id.* at 183:15-23; emphasis added.) Powell did not perform any dynamic or mechanical engineering analysis of the locking mechanism. (*Id.* at 67:20-22; 69:9-11).

Powell has not measured and has no opinions about the timing of the events.

Unquestionably, the issues revolve around timing – what was the sequence of events, what happened first, what caused what – and all that depends on ballistics and physics. Yet, Powell did not determine and has no opinions about: (1) the time for the barrel catch to disengage, supposedly, from the barrel lug; (2) the time from when the firing pin struck the primer until the action opened far enough to allow the cartridge case to be propelled rearward; or (3) whether the bullet began to move before the action supposedly began to open. (*Id.* at 133-20-134:18). Though he believes Batts fired a factory-compliant cartridge, Powell does not know how long it takes for a factory-

compliant, sub-sonic .300 Blackout bullet to exit the barrel (and along with it the pressure created by gasses from the burning propellant) once the cartridge is fired. (*Id.* at 47:11-20). He could only estimate "several milliseconds," more than three, less than 10. (*Id.*).[10]

Powell did not perform any testing or analysis to prove the components of his causation opinion.

One: Powell did no testing to determine if the incorrect propellant was used. Powell admits the mere fact the rifle opened does not determine there was a defect in the rifle. "Only through evaluation can" one determine that. One of the things one would need to determine is – "was the ammunition correct." (*Id.* at 160:20–161:11). He failed to do that. Knowing Batts was using reloaded ammunition, Powell nonetheless assumes Batts was using properly loaded factory-compliant ammunition. Powell says he concluded the propellant was the correct propellant after the ammunition was imaged in November 2017. (*Id.* at 25:2-8). Yet, he is not able to identify the propellant, even after Watkins tore down one of the rounds that Batts produced, leaving the actual propellant with Powell. (*Id.* at 25:4-22; 42:18-25). He does not know if propellant for a .308 bullet used in a .300 Blackout round could cause a squib load; he has not tested that. (*Id.* at 45:4-7)[11]

Two: Powell did no testing to rule out incorrect propellant as the cause for the bullet to lodge in the barrel. (*Id.* at 40:24 42:7). Powell, rather, "infer[s] it wasn't a squib load." (*Id.* at 41:4-21). To Powell, it "wasn't necessary" to conduct any tests to rule out the possibility of an incorrect propellant because "it's obvious that it wasn't contaminated propellant." (*Id.* at 41:22-25). Powell failed to pursue this issue, knowing the first round Batts fired was a squib load, an under pressured load from insufficient or contaminated propellant. (*Id.* at 33:12-22). Powell assumes the incident round did not contain contaminated or insufficient propellant because of the

[10] The correct answer is approximately 1.3 to 1.4 milliseconds; *see* page 3 above.
[11] As seen from his Report, Exh. 2, Watkins did identify the propellant in Batts' rounds and, after extensive testing, determined it was the incorrect propellant for the .300 Blackout bullet that Batts was shooting.

amount of pressure it produced. (*Id.* at 33-23–34:10). Yet, he does not know or have an opinion as to the amount of that pressure. (*Id.*). Powell's inference and assumptions defy common sense, scientific principles, and his own understanding. Powell agrees certain propellants should not be used with a particular bullet because propellants can develop different pressures over varying lengths of time. (*Id.* at 35:1-5; 36:3-6; 36:0-20). Powell agrees reloaded ammunition can pose a danger to the user and, if improperly reloaded, can cause serious personal injury or death and one should not use ammunition from an unknown source. (*Id.* at 107; 108:9-12; 153:22). Despite this, Powell did nothing to rule out the use of incorrect propellant.

Three: Powell never considered if the ammunition was the correct "geometry." However, Powell knew that Batts was using reloaded ammunition - the (subsonic) ammunition provided for inspection had three different cartridge cases from different manufacturers from a different caliber, all of which had been reformed or reshaped and one cartridge measured longer than what specifications require. (*Id.* at 30:25-31:18).

Four: Powell's Opinion about the Engagement of the Barrel Catch and Lug is Unreliable. Powell's view that the barrel catch – barrel lug engagement was about 60 thousandths of an inch when Batts pulled the trigger is based solely on "smeared and damaged material on the barrel catch and the barrel lug."[12] (*Id.* at 45:18-23; 46:9-22; 49:20 – 49:1). Yet, he describes this "damage" simply as "ridges of smeared metal and microscopic particles compressed in the engagement surface." (*Id.* at 167:19 – 168:1).

[12] Powell's opinion about the length of engagement is suspect, by Powell's own testimony. The length of engagement between the surfaces can be determined by the wear marks on the respective surfaces. (*Id.* at 114:12-114:16). But he chose to ignore that, because he measured the length of engagement to range from 71.6 to 77.3 thousandths of an inch. (*Id.* at 178:15 to 179:13). *See* Watkins Report, Exh. 2 at 9-10.

Five: Powell did not determine that the force of the shot did, in fact, disengage the barrel catch from the barrel lug and did not determine the force of that shot. Powell says he determined the force of the shot caused the barrel lug to disengage from the barrel catch solely because of "damaged and microscopically disturbed material at that edge [of the lug] created by the last shot that that rifle fired." (*Id.* at 46:17-22–47:10). Notably, he admits he cannot identify any "damage" to the barrel lug actually caused by the supposed, forceful disengagement from the barrel catch when the incident occurred. (*Id.* at 173:2-174:15). Furthermore, Powell does not know how much force is required to open a rifle with that amount of engagement because he has not tested that. (*Id.* at 49:2-4). He does not know and has not calculated the force and does not know and has not measured how long the force was applied. (*Id.* at 47:3-10).

POWELL APPLIED A RESULTS-ORIENTED ANALYSIS.

Powell's pseudo analysis is a hodge-podge of unproven, result-oriented assumptions. He saw the video, the rifle open, and the cartridge case propelled rearward. He had Batts' rifle x-rayed from which he assumed there was "inadequate" barrel catch – barrel lug engagement. He now had his hypothesis – one he never tested. He assumed the "inadequate" engagement failed when Batts fired a factory-compliant round of ammunition, because it was "obvious" Batts fired such a round. That, too, was a blind assumption; Batts was clearly using reloaded ammunition with a variety of reformed, reshaped cartridge cases, and the bullet from Batts' first round got stuck in the barrel. Once he had his imaging studies of the rifle, Powell never considered a single other possible cause. He never considered replicating Batts' incident. Tellingly, though he believes the second shot (which fired normally) and the incident shot created "equivalent pressures" with barrel catch – barrel lug engagements that varied "minutely," Powell cannot explain why the second shot fired normally and the next shot resulted in the incident other than to say summarily, "I know [the

engagement] was low enough that it allowed the rifle action to open." (*Id.* at 136:1 - 136:25; 137:8-11).

Albert Einstein said, "A man should look for what is, and not for what he thinks should be." Einstein foresaw what our Courts now confront and from which they protect litigants. A results-oriented methodology is contrary to the principles of reliability and trustworthiness required of expert testimony under *Daubert*. *See, e.g., Mitchell v. Gencorp, Inc.*, 165 F.3d 778, 785 (10th Cir. 1999) (citation omitted) (upholding exclusion of unreliable expert testimony: "[i]nstead of reasoning known facts to reach a conclusion, the experts here reasoned from an end result in order to hypothesize what needed to be known but what was not").

Although a state court decision, the Texas Supreme Court decision in *Mack Trucks, Inc. v. Tamez*, 206 S.W.3d 572 (Tex. 2006) is illuminating. Plaintiffs' expert opined that a fuel system defect caused a truck fire. Approving the trial court's exclusion of the expert's causation opinion, the Court stated:

> In order for [plaintiffs' expert's] testimony on causation to be reliable, he was required to present some methodology that reliably supported his opinions that the "fuel" and "ignition" parts of the fire triangle were supplied, respectively, by the tractor's alleged fuel system defects and battery system. He did not do so. The mere fact that the fuel system had a design that could cause the hoses to separate is not evidence that the hoses separated in this case.
>
> [The expert's] testimony did no more than set out "factors" and "facts" which were consistent with his opinions, then concluded that the fire began with diesel fuel from the tractor.

Id. at 581-82. Powell merely sets out "facts" he deems consistent with his untested opinions. Without testing whether the barrel catch – barrel lug engagement (below specification or not) was indeed inadequate to withstand the force of any shot, without testing other possible causes, and without even considering an attempt to replicate the incident, by *ipse dixit* Powell offers his opinion of defect and causation. "Nothing in either *Daubert* or the Federal Rules of Evidence requires a

district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered." *General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997). If *Daubert* and its progeny stand for anything, Powell's defect and causation opinions must be excluded.

CONCLUSION

Powell's circular opinion is simply this: The barrel catch – barrel lug engagement was a defect because the rifle opened, and the rifle opened because of that defect. The fundamental (and incurable) deficiency in Powell's opinion is that it does nothing more than *assume* that which is Plaintiffs' burden to prove - that the engagement between the barrel catch and lug is "inadequate" and caused the incident.

WHEREFORE, Defendant REMINGTON ARMS COMPANY, INC. respectfully requests this Court to exclude the opinion testimony of Plaintiff's witness Charles Powell as to product defect and causation as set forth herein.

Dated: July 19, 2019.

Respectfully submitted,

By: */s/ Steven E. Danekas*

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CERTIFICATE OF SERVICE

I hereby certify that on this the 19th day of July 2019, I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system which will send notification of such filing to the following:

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